

BOOK REVIEWS

California Shrubs*

G. T. HASTINGS

With an area about one-third that of the region covered by Gray's Manual California has twice as many shrubby plants. But the number of species, some 800 with 200 varieties are described in this manual, gives little idea of the importance of shrubs in the landscape of California. The deserts and sage brush regions cover large areas in the central, southern and western parts of the state; chaparral forms the "Pygmy Forest" covering the mountain slopes from San Francisco south, with extensions on the mountains of the north. In each of these areas a great variety of shrubs are found. The chaparral has great importance in preventing erosion and regulating stream flow and has a beauty that is not at first apparent. With such a wealth of shrubs a manual covering them fully is very desirable. Dr. McMinn says that the book is intended for non-professional botanists, teachers, students, foresters but may also serve the professional botanist. We venture to say that the botanist will find it almost an essential supplement to the manuals of flowering plants of the state. Both the amateur and professional will appreciate the line drawings showing details of leaf, stem, flower and fruit of each species described. These drawings are carefully done and of considerable beauty in addition to their accuracy. Also there are over forty full page half tones from photographs of the kind everyone who tries to photograph plants hopes to make and only occasionally succeeds in getting.

There are complete keys to genera and species and where varieties of a species are described there are keys for these. The introduction has a short section on the ecology of the shrubby plants of the state, and an illustrated explanation of terms. Following the main section of some 590 pages describing and illustrating the shrubs, there is a glossary, a list of specific and varietal names with their meanings, a list of nomenclature changes (58 new names or combinations of which 38 reduce species to varieties) and a section of 25 pages on the use of native shrubs in garden design.

* An Illustrated Manual of California Shrubs. Howard E. McMinn. XI + 689 pp. J. W. Stacey, Inc. 1939. \$5.00.

This is essentially a book to be used, its beauty is incidental. Armed with this and the *Illustrated Manual of Pacific Coast Trees* by McMinn and Maino the botanist in the state or the interested visitor is fully prepared to learn the names, characters and distribution of all the woody plants of the state.

Wild Flowers for Nature Lovers*

G. T. HASTINGS

In the introduction the author tells of discovering in the sand dunes of Michigan an area of varied habitats where quantities of wild flowers blossom all summer. Here he has built a bungalow where he lives for seven months of the year. Here he has studied the flowers, their structure, adaptations for pollination and seed dispersal and methods of propagation. Much of what he has learned has gone into this book. While he describes the common and more attractive wild flowers found in the northern and eastern states, his love for the Michigan dunes shows in the starring of the names of all plants found there. As one looks through the volume and notes the great number of stars he does not wonder at Mr. Quick's enthusiastically naming the region an Eldorado of wild flowers.

The arrangement of the book is unusual. Beginning with the first week of April and continuing through to the fourth week of October the reader is taken into the woods or fields and the flowers to be found in blossom are described. At the end of each week's list several pages of dainty line drawings illustrate the plants described. In addition, eight colored plates add beauty to the book. Meant for those just beginning the study of plants, grasses, sedges and many of the small flowers that do not attract attention are omitted. For each plant given there is a brief non-technical description, the range and habitat, and notes on special features, pollination and methods of propagation. At the end of the book there is a short chapter on naturalizing wild flowers and a key based on color, the plants arranged in the order in which they come into bloom under each color.

* *Wild Flowers of the Northern States and Canada*, Arthur Craig Quick. 518 pages, 8 colored plates, 234 line drawings. M. A. Donohue and Co. 1939. \$4.00.